

Application No. 10/771,674
Responsive to Office Action Dated October 31, 2006
Attorney Docket No. FS-F03227-01

Remarks

1. Amendments

By the present Amendment, claims 1 and 9 have been amended. Upon entry of the present Amendment, claims 1 to 18 will be pending in the application.

2. Comments

Paragraph 4: rejection of claims 1-8 under 35 U.S.C. 103(a)

Claims 1-8 were rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Okada et al.(US-6,120,983), Tsuzuki (US-5,677,121), Siga (US-4,332,889) and Tsukada (2002/0058220A1).

Paragraph 5: rejection of claims 9-11, 15-18 under 35U.S.C.102(b) or 103(a)

Claims 9-11, and 15-18 were rejected as anticipated by or, in the alternative, as obvious over Okada et al (USP No. 6,120,983).

Paragraph 6: rejection of claims 12-14, 17 under 35 U.S.C. 103(a)

Claims 12-14, and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Okada et al.(US-6,120,983) and Kimura (US-6,413,711).

Okada discloses a compound of the formula: $X-L_1-D$, wherein D is an electron donative group, X is an adsorption promoting group, and L_1 is a valence bond or linking group in columns 12-20, and compounds 1 to 55.

The electron donative group represented by D is preferably an amino group, a hydrazino group, a hydroxylamino group, a hydroxamic acid group, a semicarbazido group or ahydroxyl-semicarbazido. More preferably, D is an amino group, a hydrazino group or a semicarbazido group (column 5, lines 1-8). Specific examples in column 13-14 discloses compounds 7, 8 and 9 which contain a hydroxyurea group.

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The compound of formula X-L₁-D in Okada ensures sufficient super-sensitization effects in the red to infrared region, especially in the practically advantageous infrared region in the range of 750nm to 1400nm (column 3, lines 10-14, column 28, lines 19-20). Super-sensitization is defined as:

"A spectral sensitivity of a dye is increased on addition of a second substance. If the added material does not itself sensitize in the spectral region of the sensitizing dye, any increase in spectral sensitivity is clearly superadditive and the addendum may be said to supersensitize the sensitizer." (T.H. James, *The theory of the photographic process*, 4th edition, p.260A, 1977, Macmillan Pub. Co.)

The compound having an adsorptive group to silver halide and a reducing group in the present invention is represented by the following formula (I):

A-(W)_n-B formula (I)

wherein, in the formula, A represents a group adsorptive to silver halide, W represents a divalent linking group, n represents 0 or 1, and B represents a reducible group,

wherein the group adsorptive to silver halide is a heterocyclic group substituted by a mercapto group, a heterocyclic group substituted by two mercapto groups, or a nitrogen atom containing heterocyclic group having a -NH- group capable to form an imino-silver (>NAg) as a partial structure of heterocyclic ring, and the reducible group is 1-phenyl-3-pyrazolidone group.

The compound having an adsorptive group to silver halide and a reducing group in the present invention is a chemical sensitizer, which increases sensitivity notwithstanding the presence or absence of sensitizing dye.

Okada does not disclose a compound having a 1-phenyl-3-pyrazolidone group as an electron donative group.

Okada does not disclose or suggest chemical sensitizing by a compound having an adsorptive group to silver halide and a reducing group.

It would not have been obvious for a worker of ordinary skilled in the art at the

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time to anticipate a chemical sensitizing effect by a compound having an adsorptive group to silver halide and a reducing group according to Okada, or a compound having a 1-phenyl-3-pyrazolidone group as a reducing group.

Tsuzuki, Siga, Tsukada and Kimura also do not disclose or suggest the compound having an adsorption group to silver halide and a reducing group in the present invention. Therefore, Okada et al.(US-6,120,983) does not anticipate the present invention, and the combination of Okada et al.(US-6,120,983), Tsuzuki (US-5,677,121), Siga (US-4,332,889) and Tsukada (2002/0058220A1), or the combination of Okada et al.(US-6,120,983) and Kimura (US-6,413,711) does not teach nor suggest the present invention.

In view of the foregoing amendments and remarks, it is respectfully submitted that all of the pending claims are in condition for allowance. Favorable action is respectfully requested.

Respectfully submitted,



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